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NOTES ON GEOGRAPHIC DISTRIBUTION

Pisces, Characiformes, Characidae, Glandulocaudinae, *Mimagoniates barberi* Regan, 1907: First Argentinean distribution record

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ABSTRACT: The current note reports the presence of *Mimagoniates barberi* at northeastern Argentina. This record represents the southernmost limit for this species and the first country record of the genus.

The genus *Mimagoniates* Regan, 1907, included in the subfamily Glandulocaudinae, comprises seven species of small Neotropical fish: *Mimagoniates inequalis* Eigenmann, 1911, *M. lateralis* Nichols, 1913, *M. microlepis* Steindachner, 1877, *M. rheocharis* Menezes and Weitzman, 1990, and *M. silvicola* Menezes and Weitzman, 1990 are found in restricted stretches along the coastal area ranging from southern Bahia, in Brazil, to Uruguay. *Mimagoniates barberi* Regan, 1907 (Figure 1) occurs in both southwestern margin of the upper Paraná river basin and the lower Paraguay and *M. pulcher* Menezes and Weitzman, 2009 occurs in the upper Paraguay river basin (Menezes *et al.* 2008). These are oviparous characids, with internal insemination, and possess a glandular organ formed by modified scales and caudal-fin rays whose morphology is particular to each species.

In April 2007, we collected one male of *M. barberi* from the Negro creek 27°30'36" S, 55°51'38" W (Figure 2) and in June 2008 we collected a second male from the Piedras creek 27°33'40" S, 55°50'53" W (Figure 3), both tributaries of the Paraná river in Misiones province, one of the highest biodiversity areas in Argentina (Giraudo *et al.* 2003).

These streams are approximately 2-4 m wide, with well-vegetated margins, rather turbid water and wide-ranging flow speed depending on rainfall regimes. Both streams are small tributaries of the Pindapoy Chico creek, which in turn flows into the Garupá creek 5 km before the latter joins the Paraná river.

These records represent the southernmost limit for this species (Figure 4) and according to the biogeographical proposal of López *et al.* (2008), they are located within the Great Rivers Province.

According to Menezes and Weitzman (2009), *M. barberi*, *M. pulcher* and *M. inequalis* have a rudimentary caudal-fin ray pump and in this respect differ from males of their congeners which have a fully developed caudal-fin ray pump. These authors distinguish *M. barberi* from *M. inequalis* by having more branched anal fin rays (30-36 vs. 23-30), more scales in the lateral series (41-48 vs. 34-41), fewer scale rows between dorsal-fin origin and anal-fin origin (13-15 vs. 15-18) and a black mid-lateral dark stripe in adult males (Figure 5) (vs. lateral body stripe of adult males poorly developed). *Mimagoniates barberi* differs from *M. pulcher* by the number of branched anal-fin rays (30-36 vs. 26-30) and by the absence of spines on principal caudal-fin rays (vs. presence).

FIGURE 1. *Mimagoniates barberi*, ILPLA 1815, male, SL 32.4 mm, Piedras creek at the intersection with Provincial route 105, Misiones Province, Argentina.

FIGURE 2. Habitat of *Mimagoniates barberi*, Negro creek, upper Paraná River basin, Misiones Province, Argentina.

FIGURE 3. Habitat of *Mimagoniates barberi*, Piedras creek, upper Paraná River basin, Misiones Province, Argentina.

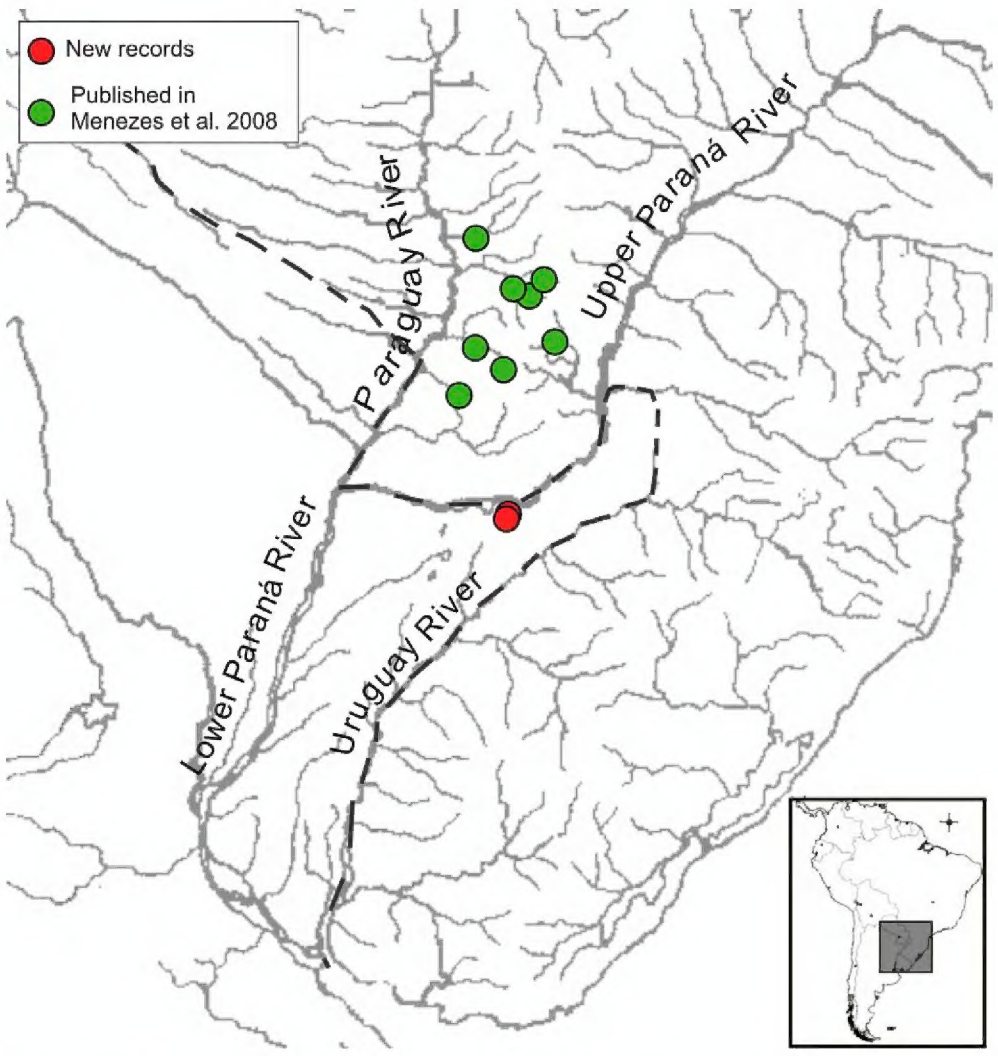

FIGURE 4. Geographic distribution of *Mimagoniates barberi*.

FIGURE 5. *Mimagoniates barberi*, MLP 9769, male, SL 33.1 mm, Negro creek at the intersection with 105 Provincial route 105, Misiones Province, Argentina.

The specimens caught by us in the Misiones rainforest were identified as *M. barberi* (Table 1) by their possession of a rudimentary caudal-fin ray pump, 30-31 scales in the lateral series, 15 scales rows between dorsal-fin origin and anal-fin origin, a well-defined black mid-lateral stripe in adult males and by the absence of spines on the principal caudal-fin rays.

Mimagoniates barberi is a rainforest species whose habitat is subject to intense anthropogenic impact such as active dams, paper and pulp factories, and deforestation. In addition, exotic species such as *Cyprinus carpio* Linneus 1758, *Oreochromis niloticus* Linneus 1758 and *Tilapia* cf. *rendalli*, occurring in inland creeks of Misiones province, are another threat to natural aquatic communities.

The specimens examined are deposited at Museo de La Plata (MLP) and Instituto de Limnología "Dr. Raúl A. Ringuelet" (ILPLA). We also examined specimens from the collection of the Museu de Ciências e Tecnología PUCRS, Brazil.

Identifications were made using Menezes and Weitzman (1990; 2009). Measurements to the nearest 0.01 mm were made using a digital caliper following Fink and Weitzman (1974).

TABLE 1. *M*orphometric and meristic data for the two males of *Mimagoniates barberi* collected in Misiones Province.

	NEGRO CREEK	PIEDRAS CREEK
MORPHOMETRIC		
Standard length (mm) (SL)	33.1	32.4
As a percentage of SL		
Head length	23.3	23.7
Greatest depth	26.7	26.3
Snout to dorsal-fin origin	61.7	57.4
Snout to pectoral-fin origin	23.9	24.2
Snout to pelvic-fin origin	40.6	40.8
Snout to anal-fin origin	52.3	51.5
Caudal peduncle length	10.8	9.9
Caudal peduncle depth	12.8	12.7
Anal-fin base length	38.9	35.5
Pectoral-fin length	20.4	18.2
Pelvic-fin length	13.6	12.3
Dorsal-fin length	24.0	22.3
Eye to dorsal-fin origin	49.1	45.8
As percentage of HL		
Eye diameter	40.0	36.6
Snout length	25.5	24.6
Interorbital width	34.8	33.8
Upper jaw length	33.9	34.2
Meristic		
Anal-fin rays	iv30	iv31
Dorsal-fin rays	ii8	ii8
Pelvic-fin rays	i6	i6
Pectoral-fin rays	i10	i8
Caudal-fin rays	i17i	i17i
Scales in lateral series	44	46
Perforated lateral-line scales	7	7
Scale rows between dorsal and anal-fin origins	15	15
Predorsal scales	23	24
Scale rows around caudal peduncle	17	15

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